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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,421	01/30/2002	Herald M. Baldonado	TI-32857	5110

7590

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Mike Skrehot
Texas Instruments Incorporated
M/S 3999
P.O. BOX 655474
Dallas, TX 75265

EXAMINER

CLARK, SHEILA V

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/066,421

Applicant(s)
Baldonado et al

Examiner
Sheila V. Clark

Art Unit
2815



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 28, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 4-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 4-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Applicant provided an drawing with red features modifications in the communication filed 12-6-2002. There however appears to be no written reference to this drawing correction nor request for approval thereby, this is a drawing correction it has not been approved. Further the new features shown in red have no basis in the disclosure whereby the disclosure fails to have any discussion of a structure represented in this way. The drawings therefore appear to introduce new matter.

Claims 1, 2, 4-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the amended features in the claims and new claims, there appears to be nothing in the original disclosure that supports the attachment features recited whereby a first end of a wire is attached by a ball bond and second end by a stitch bond and the first end of a second wire by ^a and ball and the second end by a stitch bond. The only stitch feature is discussed on page 4, line 8 with regard to the bond on lead 26. Contrary to applicant's arguments figure 4 fails to show the stitch features recited and therefore fails to make up for the deficiencies of the instant disclosure.

The continuous wire recited in claim 22 fails to be taught in the disclosure. Page 4 lines 15 and 16 with reference to Figure 4, clearly references and shows two wires 20 and 24 and discusses that they are plural wires not a single continuous wire.

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Claims 1, 2, 4-21 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is unclear what the device structure is of the interposer substrate of the instant invention. The interposer pad is the only device that appears to be shown in the drawings and the specification fails to describe said substrate. There is further no description of an electroless substrate (other than a mention of the substrate on page 2, line 7) in the disclosure nor shown in the drawings. It is also unclear to what "electroless" refers in this instance.

Other than a mention there is also no description or showing in the drawing of a ball grid array. Where is this array located? The chip shown and discussed utilizes wire bonding so it is unclear where a ball grid array would be positioned or located.

There also appears to be no description in the disclosure of for a floating interposer pad.

Further the disclosure discloses use of two wires connected to the interposer. It is unclear where there is basis for single bond wire attached to the interposer pad as recited in claims 3.

There also appears to be no discussion in the disclosure or showing in the drawings for a chip having the particular input, output, supply and ground nodes.

It is also unclear where a plurality of interposer pads are located.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electroless substrate, single

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continuous bond wire, ball grid arrays, plurality of interposer pads, floating interposer pad. must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-22 in so far as definite are rejected under 35 U.S.C. 102(e) as being anticipated by Schmidt et al.

Schmidt et al shows a first end of a first bonding wire attached to chip 2 and a second end attached to an interposer pad 4. A second bonding wire is attached at a first end to said interposer pad and at a second end to lead 3. Said bond wire is gold and col.5, line 1 teaches providing ball bonding to said interposer pad.

Claims 1-22 in so far as definite are rejected.

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Applicant's arguments filed 12-6-2002 have been fully considered but they are not persuasive.

Applicant appears to attempt to provide basis for several features that fail to have adequate description in the disclosure and drawings. The features that the applicant attempts to show fail to be supported by the features of the drawings nor details rendered in the specification. Applicant attempts to argue that figures 5 and 6 show pads that correspond to leads under a substrate where solder balls are formed. The drawings however fail to show a substrate and the disclosure fails to teach substrate features to substantiate the claims. Pads connected to leads are further not conventionally bound to a solder bond substrate underside arrangement. The same lack of support is true of the floating interposed pad and stitch pad argument.

Further as discussed above, there is nothing in the original disclosure that supports the attachment features recited where by a first end of a wire is attached by a ball bond and second end by a stitch bond and the first end of a second wire by and ball and the second end by a stitch bond. The only stitch feature is discussed on page 4, line 8 with regard to the bond on lead 26. Contrary to applicant's arguments figure 4 fails to show the stitch features recited and therefore fails to make up for the deficiencies of the instant disclosure.

The disclosure has failed to sufficiently render clear details relative to the above noted structure and therefore fails to provide any real information relative to the features.

Further such features as an "electroless substrate", "ball grid array" etc. may have a variety of structural appearances which fail to be discussed or shown in the drawings. An attempt to show a feature that is inadequately disclosed may be regarded in some cases as new matter.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner S.V. Clark whose telephone number is (703) 308-4924.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee, can be reached on (703) 308-1690. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

February 21, 2003


SHEILA V. CLARK
PRIMARY EXAMINER